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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,217	08/19/2003	John Graeme Houston	081421.000002	7117

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EXAMINER	
AUGHENBAUGH, WALTER	
ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
07/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@bgllp.com

Office Action Summary	Application No.	Applicant(s)	
	10/650,217	HOUSTON ET AL.	
	Examiner	Art Unit	
	WALTER B. AUGHENBAUGH	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-37,47-49 and 54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-37,47-49 and 54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Applicant's Amendments

1. The amendments made in claims 33-37, 47, 49 and 54 in the Amendment filed April 11, 2008 have been received and considered by Examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 33-37, 47-49 and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Lafontaine et al. (USPN 6,500,186).

In regard to claim 33, Lafontaine et al. teach an intravascular stent comprising a tubular member, where the tubular member has an internal helical formation (channels 52, col. 3, lines 4-20 and Fig. 1 and 2). The internal helical formation would induce spiral flow when a liquid passes through the stent due to the spiral structure of the channels 52 (Fig. 1 and 2). The internal helical formation has a helix angle that falls within the claimed range of between 5 and 16 degrees relative to a longitudinal axis of the stent along at least a portion of the length of the internal helical formation (Fig. 1 and 2).

In regard to claim 34, the tubular member of Lafontaine et al. comprises a mesh member (self-expanding stent 32) that is expansible and is inserted by catheterization in collapsed form and which becomes expanded on release from the catheter (col. 2, lines 43-58 and Fig. 1). The

internal helical formation of Lafontaine et al. is attached to an interior portion of the mesh member (self-expanding stent 32) of Lafontaine et al. via the drive shaft 22 (col. 2, lines 43-58 and Fig. 1).

In regard to claim 35, the mesh member (self-expanding stent 32) of Lafontaine et al. comprises crisscrossed wires extending helically around the periphery of the stent (col. 2, lines 43-58 and Fig. 1). The internal helical formation of Lafontaine et al. comprises a helical vane member attached to the wires because the internal helical formation of Lafontaine et al. corresponds to a helical vane member because it has channels 52 that are arranged spirally (Fig. 1 and 2), and because the internal helical formation of Lafontaine et al. is attached to an interior portion of the mesh member (self-expanding stent 32) of Lafontaine et al. via the drive shaft 22 (col. 2, lines 43-58 and Fig. 1).

In regard to claim 36, the helix angle of the channels 52 is adjustable because it varies along the length of the channels (Fig. 1 and 2).

In regard to claim 37, the internal helical formation of Lafontaine et al. comprises a rigid support (drive shaft 22) that is coaxially mounted within the tubular member and a spiral flow inducer vane (cutter 22) surrounding and extending from the rigid support (drive shaft 22) (col. 3, lines 4-20, col. 2, lines 43-58 and Fig. 1 and 2).

In regard to claim 47, Lafontaine et al. teach an intravascular stent comprising an expansible tubular mesh member having a collapsed form to be inserted into a vein and an expanded form to be retained within the vein (self-expanding stent 32, col. 2, lines 43-58 and Fig. 1 and 2). Lafontaine et al. teach that the mesh member has at least one vane stationarily (cutter 22 comprising channels 52, col. 3, lines 4-20 and Fig. 1 and 2) attached to an interior of

the mesh member via drive shaft 22, where the vane has a helix angle that falls within the claimed range of between 5 and 16 degrees relative to a longitudinal axis of the stent along at least a portion of the length of the internal helical formation since the channels 52 has a helix angle that falls within the claimed range of between 5 and 16 degrees relative to a longitudinal axis of the stent along at least a portion of the length of the internal helical formation (Fig. 1 and 2). The internal helical formation would induce spiral flow of blood when blood passes through the stent due to the spiral structure of the channels 52 (Fig. 1 and 2).

In regard to claim 48, the mesh member (self-expanding stent 32) of Lafontaine et al. comprises a plurality of wires that extend helically and cross each other to form junctions (col. 2, lines 43-58 and Fig. 1).

In regard to claim 49, the internal helical formation of Lafontaine et al. comprises a rigid support rod (drive shaft 22) that is coaxially mounted within the tubular member, a flexible sleeve (self-expanding stent 32) within the tubular member and surrounding the support rod, and a flexible helical vane (cutter 22 comprising channels 52) mounted to the sleeve via the drive shaft 22 where the sleeve (self-expanding stent 32) is axially contractible relative to the support rod, which would allow one to vary an angle of the vane relative to the support rod (col. 3, lines 4-20, col. 2, lines 43-58 and Fig. 1 and 2).

In regard to claim 54, the helix angle is about 16 degrees relative to the longitudinal axis of the tubular member at some locations along each channel 52 (the helix angle is 16 degrees relative to the longitudinal axis of the tubular member at a single location along each channel 52, so the helix angle is *about 16* degrees relative to the longitudinal axis of the tubular member at locations along each channel 52) (Fig, 1 and 2).

Response to Arguments

4. Applicant's arguments regarding the 35 U.S.C. 102 rejection of the claims as being anticipated by Frassica (USPN 5,989,230) are moot due to the withdrawal of this rejection due to Applicant's amendments in claims 33 and 47 in the Amendment filed April 11, 2008.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is (571) 272-1488. While the examiner sets his work schedule under the Increased Flexitime Policy, he can normally be reached on Monday-Friday from 8:45am to 5:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Walter B Aughenbaugh /
Examiner, Art Unit 1794

7/16/08

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1794